PROPOSAL EVALUATION

Proposition 84 Integrated Regional Water Management (IRWM) Grant Program

Implementation Grant, Round 1, FY 2010-2011

Applicant	Northeastern San Joaquin County Groundwater Banking Authority	**Amount Requested**	$ 1,345,644
Proposal Title	City of Stockton Phase II HET Residential Program and Stockton East Water District 35 Acre Recharge and Conjunctive Use Project	**Total Proposal Cost**	$ 1,794,379

PROPOSAL SUMMARY

Two projects are included in the proposal: (1) City of Stockton High Efficiency Toilet Direct Installation Phase II Program to Residential Customers (Phase II HET Program) and (2) the Stockton East Water District (SEWD) 35 Acre Recharge Pond and Conjunctive Use Project (Recharge Project).

PROPOSAL SCORE

Criteria	Score/ Points Possible	Criteria	Score/ Points Possible
Work Plan	**12/15**	Economic Analysis – Water Supply Costs and Benefits	**12/15**
Budget	**5/5**	Water Quality and Other Expected Benefits	**3/15**
Schedule	**5/5**	Economic Analysis – Flood Damage Reduction	**0/15**
Monitoring, Assessment, and Performance Measures	**3/5**	Program Preferences	**8/10**
		Total Score (max. possible = 85)	**48**

EVALUATION SUMMARY

The following is a review summary of the proposal.

Work Plan

The criterion is fully addressed, but is not supported by thorough documentation and sufficient rationale for one of the projects. Project 2 is part of the larger Farmington Groundwater Recharge Program, which is an integral component of the 2007 IRWMP and the Regional Integrated Conjunctive Use Program. For this project, construction descriptions on pages 3-37 and 3-38 are extremely brief and are not sufficiently detailed; and technical information supporting feasibility is lacking credibility. For example, a target recharge rate of 0.4 feet per day may be reasonable, and is stated to be similar to other operational recharge cells located on the applicant's property, but no technical or historical data is included in the attachment or the application that supports the data.

Budget

The costs are reasonable, and all the supporting documentation for the Budget categories is thoroughly supported. A summary budget is provided for both projects, as well as a summary budget for the total proposal that shows a 25% funding match. Each project includes detailed information, though with more detail included for the cost estimate in Project 2, as the scope for this project is much larger. The applicant is only requesting grant funds to purchase toilets and associated plumbing materials for Project 1. The costs appear reasonable and agree with the tasks included in the applicable work plans.

Schedule

The schedule is consistent and reasonable, and demonstrates a readiness to begin construction or implementation by December 1, 2011. The schedule corresponds to the tasks identified in the Work Plan. Project 1 (Task 4) is scheduled to begin in September 2011. For Project 2: 60% Design was completed June 2010; 90% Design is scheduled for completion June 2011; and 100% Design is scheduled for July 2011 with construction schedule to begin in September 2011. Project 1 and 2 are scheduled for completion (Final Reporting) in December 2013 and March 2012, respectively.

Monitoring, Assessment, and Performance Measures

The criterion is less than fully addressed and documentation is incomplete and insufficient. The applicant includes a single page with two separate Project Performance Measures Tables, one for each proposed project. The two tables do include information for each of the six elements identified in the Implementation PSP. In addition, other than the brief information contained in the tables, no explanation is provided relating to the project benefits or objectives identified in the proposal. The outcome indicators are not consistent with what was requested in the PSP. For example, the outcome indicators provided of "feet per day" and "acre-feet" are only partially indicative of output indicators requested, and not outcome indicators. As an example, "Improved water quality and/or water supply reliability" could have been included as outcome indicators necessary to satisfy this criterion.

Economic Analysis – Water Supply Costs and Benefits

Above average levels of water supply benefits relative to costs can be realized through this proposal, based on the quality of the analysis and supporting documentation. The proposal includes two projects, both of which provide water supply benefits. Generally, the proposal provides a good analysis and explanation of cost and benefit calculations. Issues noted below include incorrect accounting for land cost.

Project 1 would install HETs or replace high water use toilets in residences, especially targeting pre-1992 homes and economically Disadvantaged Communities (DAC). 400 HETs are targeted for installation in residences, with a projected savings of 22.4 acre-feet (AF) per year. Another 417 would be installed in Commercial, Industrial, and Institutional (CII) locations, with savings of 39.2 AF per year. Savings per HET is calculated using California Urban Water Conservation Council (CUWCC) methodology, resulting in savings of 0.056 AF/yr/HET residential and 0.0941 AF/yr/HET for CII. Savings appear appropriately scaled over the installation period. Value of savings is $732/AF, the marginal unit cost of municipal supply from a recent project, Delta Water Supply Project. Cost and yield summary are well supported as data are provided and referenced. Based on information provided, the applicant assumed that the HETs would actually avoid the full cost of the other project (including capital) in the near term. Present value (PV) of costs is $360K, and PV of benefits is $407K.

Project 2 would construct and operate a 35-acre recharge basin. Water sources include Calaveras and Stanislaus River delivery, treatment plant backwash, and local drainage water. Maximum recharge capacity is 2,680 AF/year. Existing wells would extract water and deliver to Stockton municipal treatment plant. Expected maximum dry-year extraction is 1,193 AF per year. The recharge and extraction quantities appear reasonable but are not well supported. For example it is unclear how the recharged water would have been used in absence of this recharge project. Costs are shown in 2009 $ and capital cost matches that shown in Table 7.

Water Quality and Other Expected Benefits

Only low levels of water quality and other benefits relative to costs can be realized through this proposal, as demonstrated by the analysis and supporting documentation. Only a general description of possible quality benefits is provided, and the cause and effect link seems weak in the case of the Project 1.

For both projects, a general description is provided drawing an indirect link to reduced arsenic levels in drinking water and reduced salinity intrusion from avoided groundwater pumping. For Project 1, this is not consistent with the description of water supply benefits, because the assumed water supply alternative is not groundwater pumping, but rather the avoided cost of another surface water treatment project.

Project 2 is likely to reduce migration of saline groundwater by some amount, but the degree of significance is unclear given the scale of the project. Also, the project is not sited specifically to address salinity intrusion. It is also unclear how significantly the project would affect arsenic levels region-wide.

Economic Analysis – Flood Damage Reduction

No flood damage reduction benefit is claimed.

Program Preferences

The Proposal includes two projects that collectively will implement multiple Program Preferences. While Project 2 addresses drought preparedness, as a stand-alone project and as a component of a larger project, it does not directly meet a critical water supply or water quality need of a DAC. Although Project 1 has a goal of 15% of the high efficiency toilets slated for installation in the DACs, the applicant did not clearly indentify how this addresses a critical water supply or water quality need. Both projects meet numerous other IRWM Program Preferences and Statewide Priorities. Based on the thoroughness of the Work Plan, and in the information provided in Attachment 11, the applicant demonstrates a high-degree of certainty that the applicable Preferences and Priorities will be implemented. The applicant has documented the magnitude and breadth of the following Preferences: Include regional projects or programs, Effectively integrate water management programs and projects within hydrologic region, Effectively resolve significant water-related conflicts within or between regions, Contribute to attainment of one or more of the objectives of the CALFED Bay-Delta Program, Use and reuse water more efficiently, Protect surface water and groundwater quality, and Drought preparedness.